

SPLIT

Work Order ID 68880-2

Monday, April 25, 2011 8:10:08 AM

Item ID: D1038-58B

Accept

Setup Start

Revision ID:

Stop

Item Name: Fastener Rail, Black

Start Date: 4/25/2011 Start Qty: 100.00

Cust Item ID:

Required Date: 5/6/2011 Req'd Qty: 100.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject/ Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D1038	Rev B								
100		0.00							
	DOCUMENT CONTROL								
DC	Memo	0.00							
Document Control	Create white labels and bag them								
110		0.00							
	BAND SAW								
Bandsaw	Memo	0.00							
Jeaspa Bandsaw	Cut extrusion D2023 to length 21.81" (+0.06/-0.00)								
120		0.00							
	HAAS CNC VERTICAL MACHINING #1								
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	1- Mill as per Folio FA783 Rev: AA & Dwg D1038 Rev: B 2-Deburr per dwg D1038								

Last

70.0 g/m

OK 11-05-25

B.A 11/04/25

70 30 0

B.A 11/04/25

70 30 0

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Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130



QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

H.A. 11/04/25

70 30

0

140



QC

Quality Control

QC8- Inspect parts - second check

0.00

Memo

0.00

X 11/04/07

70

0

150



Small Fab

Small Fab

Small Fab

Memo

Debur

0.00

0.00

EP 11/05/03 (70)

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Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

S 11/05/03

cont
(70)

170



Outsource4

Outsource process - Anodize

Outsource process-Anodize per QSI017 4.1.10.1

0.00

Memo

Issue P/O: 13993
Black Anodize as per Dwg D1038

0.00

CL 11/05/03 (70)

180



Packaging

Packaging

Receive & Inspect for Damage & Mat'l Certs

0.00

Memo

0.00

11/05/06 (70)

Work Order ID 68880

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Cust Item ID:

Required Date: 5/6/2011 Req'd Qty: 100.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

QC5- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

200

Small Fab

0.00



Small Fab

Memo

0.00

Small Fab

1-Stake .050 stainless steel wire per Dwg D1038-58 using DT8389

Batch: M111948

2-Grind wire flush and deburr

3-Clean

210

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8 11/05/09

*count
770*

SP 11/05/17 70

SP 11/05/17

70

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Customer:

Reference:

Run Start

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

220



Packaging

Packaging

Packaging

Memo

1-Pack each fastener rail into a cardboard tube
2-Roll Part in foam
3-Install red cap at each end and secure with tape.
4-Apply white labels to cardboard tubes
5-Identify and Stock
Location: D4

0.00

0.00

230



QC

Quality Control

QC21- Final Inspection - Work Order Release

Memo

0.00

0.00

11/5/10

11/5/26/11

11-05-25
(70)

Picklist Print

Monday, April 25, 2011 8:10:05 AM

Page 1

Work Order ID: 68880



Parent Item: D1038-58B



Parent Item Name: Fastener Rail, Black

Start Date: 4/25/2011

Required Date: 5/6/2011

Start Qty: 100.00

Required Qty: 100.00

Comments:

IPP: E 03.05.02 Reformat; Added label KJ/RF

IPP Rev:F 06-08-16 Updated Packaging Procedures JLM

IPP Rev:G 08-09-16 Added Folio # JLM Verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2023

Manufactured

No

110

f

1,414.000

1.903

190.3



Extrusion, Fastener Rail

Location

MAT006

21907

Loc Qty

1414

1414

Loc Code

~~55/000~~ ft
190.3000 ft
P.A. 11/04/25

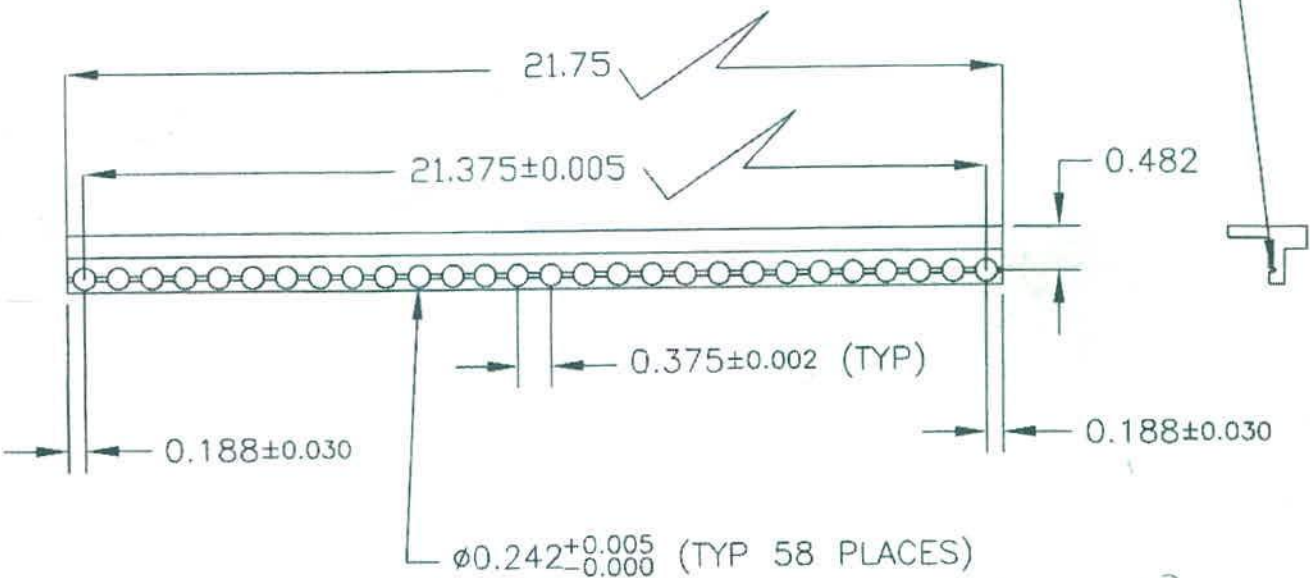
DART

RELEASED

05.03.31

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	REV. B
CHECKED DATE 05.02.02	APPROVED DATE 05.02.02	DRAWING NO. D1038	SHEET 1 OF 1
1	91.05.05	1/4 TURN FASTENER RAIL	SCALE NTS
A	04.05.14	NEW ISSUE	
B	05.02.02	UPDATE TOLERANCE REDRAWN, UPDATE NOTES	

STAKE $\phi 0.50$ TYPE 302 STAINLESS
STEEL WIRE FULL LENGTH
(REF DART SPEC M302SW.050)



D1038-58 1/4 TURN FASTENER RAIL

- 1) MAKE FROM D2023 EXTRUSION
- 2) FINISH: D1038-58 NONE
D1038-58B - ANODIZE BLACK PER DART QSI 017 4.1.10
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) ALL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

DART AEROSPACE LTD	Work Order:	68880
Description: 1/4" Turn Fastener	Part Number:	D1038-58B
Inspection Dwg: D1038-58B Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

[illegible]

Measured by: <u>MA</u>	Audited by: <u>[Signature]</u>	Prototype Approval: <u>N/A</u>
Date: <u>11/04/25</u>	Date: <u>11/04/25</u>	Date: <u>N/A</u>

Rev	Date	Change	Revised by	Approved
A	05.02.16	New Issue	KJ/JLM	
B	06.03.08	21.750 was 12.750, Dwg rev. changed	KJ/JLM	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO13993

Purchase Order Date 5/3/2011

PO Print Date 5/3/2011

Page Number 1 of 1

Order From :

VC-AND002

ANODIZING & PAINT T.N.M. INC.
21 AVIATION ROAD
POINTE CLAIRE, QC H9R 4Z2
CA

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

514 429 7777

514 429 5108

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED
Coluto 30

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	68880	D1038-58B FASTNER RAIL	5/10/2011 Yes	70.00	FedEx PI collect	\$1.7143	\$120.00

Special Inst: ANODIZE AS PER DWG D1038-58B
B68880
BLACK ANODIZE AS PER MIL-A-8625F
TYPE 1 OR
IB/IC/II OR IIB CLASS 2

PO Total:

\$120.00

CERTIFICATE OF CONFORMITY
REQ'D UPON DELIVERY

Change Nbr: 1

Change Date: 5/3/2011

CL
No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable



21 chemin de l'Aviation, Pointe-Claire
QC H9R 4Z2
Canada
Phone: 514-429-7777 Fax: 514-429-5108
EMail: info@tnminc.ca

Packing Slip

DATE PACKING SLIP #

5/5/2011

- 89325



BILL TO:

SHIP TO:

DART AEROSPACE LTD.
1270 ABERDEEN STREET
HAWKESBURY ON K6A 1K7

No. De Commande/PO#	CUST	TERMS	REP	SHIP	VIA	F.O.B	JOB NUMBER
13993	0094	NET 30		5/5/2011	Purolator		131094-001

PO Line#: 1

QTY DUE	QTY SHIPPED	QTY B/O	DESCRIPTION
70	70	0	P/N:D1038-58B TNM-REV:P1 57150 FASTENER RAIL

Purolator

Sign Here: _____

En cas de perte ou de dommages dû à la valeur intrinsèque de certaines pièces, la responsabilité se limitera à deux fois la valeur du traitement des pièces perdues ou endommagées.
Due to the intrinsic value of some parts, we are only liable for loss or damage to twice the invoiced finishing costs.

Packing Slip PACK01 REV: PACK01



Anodisation & Peinture TNM Inc

21 chemin de l'Aviation, Pointe-Claire QC H9R 4Z2
Telephone 514-429-7777 Fax 514-429-5108
AS9100 Rev B Certified QMS, Nadcap, Chemical & NDT

C of C: 89325



5/5/2011

CLIENT / CUSTOMER:

CERTIFICATE OF COMPLIANCE
CERTIFICAT DE CONFORMITE

DART AEROSPACE LTD.
1270 ABERDEEN STREET
HAWKESBURY ON K6A 1K7

PURCHASE ORDER /
NO. DE COMMANDE:

13993

ITEM	COMMANDE ORDERED	EXPEDIE SHIPPED	PART NUMBER & DESCRIPTION PROTECTIVE FINISH CODES	PART PROCESS & TREATMENT
1	70	70	P/N:D1038-58B TNM-REV:P1 57150 FASTENER RAIL MAT'L: ALUMINIUM D1038-58B B68880 FASTENER RAIL	BLACK ANODIZE PER MIL-A-8625F1 TYPE II CLASS 2 ALL OVER

8 11/5/08

Nous certifions que les pièces énumérées ont été traitées, testées et inspectées selon les spécifications mentionnées.
Les cartes de travail ont été remplies et sont disponibles pour consultation, sur demande.
All parts are processed, tested, and inspected to the requirements of above specifications.
Travel cards have been filled and are available for viewing upon request.
NOTE: Les pièces peintes seront complètement résistantes au solvant après 7 (sept) jours complets de séchage à l'air ambiant.
NOTE: Painted Parts will be Fully Solvent Resistant after 7 (seven) Full Days of Air Curing at Ambient Temperatures"

Signature/Signed: _____

Directeur de la Qualité / Q.A. Manager

Quality System Instruction 017
PRODUCT SPECIFICATIONS FOR PURCHASING
AND PRODUCTION USE

Procedure Issue Date: 04.12.02 Issue No: 05

REFERENCE ONLY

4.1.8 LABELS

- 4.1.8.1 Labels for exterior use shall be manufactured from 3M 7 mil Masking Film #8522CP or Avery IPM #2031.

4.1.9 PLATING

- 4.1.9.1 Cad Plating is to be done per QQ-P-416F Class 1 Type II.
- 4.1.9.2 Zinc Plating is to be done per QQ-P-325C Class 1 Type II.

4.1.10 ANODIZING

- 4.1.10.1 Anodize per MIL-A-8625F Type I or IB or IC or II or IIB Class 2

4.2 ALTERNATES

These alternatives are acceptable unless otherwise stated on a drawing. Any substitutions not listed below require engineering approval.

- 4.2.1 The following are interchangeable: 80-007-15, SL3159-4A-15, K100H4A95-15, FT5215-12A-15, and FIT7623-4A-15
- 4.2.2 Avibank inserts ALS7-XXXX-YYY may be used interchangeably with ALS4-XXXX-YYY, AKS7-XXXX-YYY, and AKS4-XXXX-YYY or Interfast AELS-XXX-YYY. For example, ALS7-1032-130 may be used interchangeably with ALS4-1032-130, AKS7-1032-130, AKS4-1032-130 and AELS-032-130 inserts and ALS7-1032-225 may be used interchangeably with ALS4-1032-225, AKS7-1032-225, AKS4-1032-225 and AELS-032-225 inserts. Locking inserts (designated by an L at the end of the part number i.e. ALS7-1032-130L) may be substituted for non-locking inserts (ie. ALS7-1032-130) with approval from Engineering only.
- 4.2.3 MS21042L? can be used interchangeably with the corresponding MS21042-?
E.g. MS21042L4 for MS21042-4
MS21042L? are non-interchangeable with MS21042L0?
E.g. MS21042L6 cannot be changed with MS21042L06
- 4.2.4 5052-H34 AND 5052-H32 can be used interchangeably.
- 4.2.5 MS21919WDG and MS21919DG are interchangeable.
- 4.2.6 ANXXX-XJ, ANXXX-XK, and ANXXX-XC can be used interchangeably
MSXXXXX-XJ, MSXXXXX-XK, and MSXXXXX-XC can be used interchangeably
- 4.2.7 BLC3C15S and BLRS-002 can be used interchangeably